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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/823,196

04/12/2004

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875.0132.U1(US)

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EXAMINER

NGUYEN, LEON VIET Q

ART UNIT

PAPER NUMBER

2611

MAIL DATE

DELIVERY MODE

03/31/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center">Advisory Action Before the Filing of an Appeal Brief</p>	<p>Application No. 10/823,196</p>	<p>Applicant(s) KUCHI ET AL.</p>	
	<p>Examiner LEON-VIET Q. NGUYEN</p>	<p>Art Unit 2611</p>	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 03 March 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: 13-16, 18, 19 and 61.
Claim(s) objected to: 37, 41, 56 and 60.
Claim(s) rejected: 1, 25-36, 38-40, 42-55, and 57-59.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see continuation sheet.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____.

/David C. Payne/
Supervisory Patent Examiner, Art Unit 2611

Re claim 1, applicant asserts that Zhang does not disclose or suggest "reduced state sequence detection of real and imaginary parts of signals..., separately to filter out noise plus residual interference across inphase (I) and quadrature (Q) branches" or "joint pre-filtering ... of real and imaginary parts of signals..., separately to filter out noise plus residual interference across inphase (I) and quadrature (Q) branches." (Remarks page 12 fourth paragraph).

Examiner respectfully disagrees.

On page 542, right side, first paragraph Zhang discloses that the receiver structure comprises a MIMO prefilter which is used to filter the EDGE signal as described in the introduction on page 541. The joint MIMO feed-forward filter in fig. 1 performs this function. As disclosed in the introduction, EDGE uses an 8-PSK modulation scheme. It is well known in the art that PSK modulation uses a constellation with real and imaginary axes, which are termed in-phase and quadrature respectively. Therefore the MIMO receiver depicted in fig. 1 receives or detects the I and Q portions of an EDGE signal, then pre-filters the signal prior to equalization.

The JRSSE, or Joint Reduced-state Sequence Estimator, in fig. 1 is interpreted to perform the reduced state sequence detection as claimed in claim 1. Furthermore, it is noted that applicant's specification never discloses reduced state sequence detection but the specification does however disclose reduced state sequence estimation (see page 11, ¶0053-¶0056 of applicant's specification). It is evident from fig. 1 of Zhang that the MIMO receiver first performs pre-filtering by means of the Joint MIMO Feed-Forward filter and then subsequently performs reduced state sequence estimation, as claimed in claim 1. Each function is performed in separate blocks (see fig. 1). Also, it is well known in the art that filters are used to reduce or remove noise and interference from signals.

Therefore the Zhang reference anticipates claims 1, 29-31, 40, 42, 43, 48-50, and 59.

Re claim 25, applicant asserts neither Zhang nor Onggosanusi disclose "reduced state sequence detection of real and imaginary parts of signals..., separately to filter out noise plus residual interference across inphase (I) and quadrature (Q) branches" (Remarks page 13 second paragraph).

Examiner respectfully disagrees.

Zhang does disclose the claimed limitations (see the response to the arguments of claim 1 above). One of ordinary skill in the art would have found it obvious to combine Zhang and Onggosanusi. Therefore the combined Zhang and Onggosanusi references render claims 25-28 and 44-47 unpatentable.

Re claim 32, applicant asserts that neither Zhang nor Olsson disclose "reduced state sequence detection of real and imaginary parts of signals..., separately to filter out noise plus residual interference across inphase (I) and quadrature (Q) branches" or "joint pre-filtering ... of real and imaginary parts of signals..., separately to filter out noise plus residual interference across inphase (I) and quadrature (Q) branches." (Remarks page 14 first and second paragraphs).

Examiner respectfully disagrees.

Zhang does disclose the claimed limitations (see the response to the arguments of claim 1 above). One of ordinary skill in the art would have found it obvious to combine Zhang and Olsson. Therefore the combined Zhang and Olsson references render claims 32, 33, 36, 38, 51, 52, 55, and 57 unpatentable.

Re claim 39, applicant asserts that neither Zhang, Olsson, or Hafeez disclose "reduced state sequence detection of real and imaginary parts of signals..., separately to filter out noise plus residual interference across inphase (I) and quadrature (Q) branches" or "joint pre-filtering ... of real and imaginary parts of signals..., separately to filter out noise plus residual interference across inphase (I) and quadrature (Q) branches." (Remarks page 14 last paragraph).

Examiner respectfully disagrees.

Zhang does disclose the claimed limitations (see the response to the arguments of claim 1 above). One of ordinary skill in the art would have found it obvious to combine Zhang, Olsson, and Hafeez. Therefore the combined Zhang, Olsson, and Hafeez references render claims 39 and 58 unpatentable.